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**ОЙЛОП ТАБУУЧУ МАСЕЛЕЛЕРДИ ЧЫГАРУУНУН ТЕОРИЯСЫН
СТУДЕНТТЕРДИ ОКУТУУ ПРОЦЕССИНДЕ КОЛДОНУУ**

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**ПРИМЕНЕНИЕ ТЕОРИИ РЕШЕНИЯ ИЗОБРЕТАТЕЛЬСКИХ ЗАДАЧ (ТРИЗ)
В ПРОЦЕССЕ ОБУЧЕНИЯ СТУДЕНТОВ**

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**APPLICATION OF THE THEORY OF INVENTIVE PROBLEM SOLVING (TRIZ)
IN THE LEARNING PROCESS OF STUDENTS**

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Макалада студенттерди окутуу процессинде ойлоп табуучу маселелерди чыгаруунун теориясын колдонуу методикасы баяндалган. Окутуу процессинде ойлоп табуучу маселелерди чыгаруунун теориясынын негизги принциби болжолдоого негизделген, мында ар бир көйгөй бир катар чыгармачыл чечимдерге ээ.

Негизги сөздөр: окутуу процессинде ойлоп табуучу маселелерди чыгаруунун теориясы, технология, структура, көйгөйлөр.

В статье изложены методика применения теории решения изобретательских задач (ТРИЗ) в процессе обучения студентов. Основной принцип теории решения изобретательских задач (ТРИЗ) основан на предположении, где каждая проблема имеет ряд творческих решений.

Ключевые слова: теория решения изобретательских задач (ТРИЗ), технология, структура, проблемы.

In article the method of application of the theory of inventive problem solving (TRIZ) in the learning process of students. The basic principle of the theory of inventive problem solving (TRIZ) is based on the assumption, where each problem has a number of creative solutions.

Key words: theory of inventive problem solving (TRIZ), technology, structure, problems.

Achieving the level of creative development of the person is considered to be the highest score of any educational technology. But there are technologies in which the development of creative abilities is a priority. Among the modern innovative technologies of teaching students creative thinking leading position, in our opinion, takes the technology G.S Altshuller's - Theory of Inventive Problem Solving.

The main principle of TRIZ is based on the assumption that every problem has a lot of creative solutions. The man who thinks in stereotypes, is able to find only 10% of them. And, unfortunately, almost everyone is dependent on their own and societal attitudes so that in the search for solutions unconsciously uses them and finds only a minimal number of the most primitive and standard solutions. TRIZ helps fight the stereotypical thinking.

G.S Altshuller posed the problem: "How, without continuous sorting options to go directly to a strong solution of the problem? "

To solve this problem helps the principles underlying TRIZ:

The principle of the objective laws of development of systems - the structure, functioning and change of generation systems subject to objective law. Strong solutions - a solution corresponding to an objective law, laws, phenomena, effects.

The principle of contradiction - under the influence of external and internal factors arise, and aggravated contradictions are resolved. The problem that, there is a system of contradictions hidden or clear. System evolving, overcoming the contradictions based on objective laws, laws, phenomena and effects. Strong solutions - a solution to overcome the contradiction.

The principle of specificity - each class of systems, as well as some representatives in this class have specific characteristics that facilitate or hinder change system. This specific characteristics defined resources: internal -Theme on which the system and the external environment and the situation that is system. Strong decision is a decision, taking into account the specific characteristics of specific systems, as individual characteristics associated with the personality of the specific characteristics of a particular person, the decisive issue. The methodology of problem solving based on the studied TRIZ general laws of evolution, the general principles of resolution of conflicts and mechanisms for solving specific practical problems.

TRIZ includes:

- mechanisms transform into an image problem solving future date;
- suppression mechanisms of psychological inertia obstructive search (imaginative solutions find difficult to overcome without our strongly held beliefs and stereotypes);
- extensive information fund-concentrated experience in solving problems.

Strategic principles of conducting studies on TRIZ is as follows:

- From simple to complex
- From the fabulous fantasy to think abstractly.
- From the low load to high load, the duration from 10 minutes to 1 hour, but in any case to complete activity before students lost interest.
 - From overcoming stereotypes and copy creativity.
 - From disparate facts to look for patterns.
 - From unsystematic to the system.
 - From the surface to the deep knowledge, from the study of the consequences to the causes. From the "narrow" objective thinking to the "broad" and dialectical system.
 - From inertia to interest and, further, to the obsession.
 - From information to knowledge and ability to use them.
 - From one functionality to multi functionality.

- From the "I want" to "must". From the child's egocentrism to justice.

- From uncertainty to certainty. By incorporating elements of TRIZ classes to regular classes for the study of TRIZ.

TRIZ - art scientific technology. Like any science, it combines a strictly scientific approaches and definitions of art. And both require time and effort to their development. Therefore, the effective use of TRIZ - the technology is possible only after a long and serious study.

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